



DANTES Subject Standardized Tests

Fact Sheet

ENVIRONMENT AND HUMANITY: **The Race to Save the Planet**

TEST INFORMATION

This test was developed to enable schools to award credit to students for knowledge equivalent to that which is learned by students taking the course. The school may choose to award college credit to the student based on the achievement of a passing score. The passing score for each examination is determined by the school based on recommendations from the American Council on Education (ACE). This minimum credit-awarding score is equal to the mean score of students in the norming sample who received a grade of C in the course. Some schools set their own standards for awarding credit and may require a higher score than the ACE recommendation. Students should obtain this information from the institution where they expect to receive credit.

CONTENT

The following topics, which are commonly taught in courses on this subject, are covered by this examination.

**Approximate
Percent**

I. Ecological Concepts

30%

Includes ecosystems; global ecology; atmospheric structure; roles of organisms; biodiversity and stability; energy flow; trophic levels; food chains and food webs; biogeochemical cycling; biomes and productivity; population biology; evolution; succession in freshwater and terrestrial communities.

II. Environmental Impacts

30%

Includes human population growth; global climate and weather; greenhouse effect; ozone layer; pollution - physical, chemical, and biological aspects; environmental risk assessment; agricultural and industrial revolutions; industrial development of emerging nations; deforestation; desertification; eutrophication.

III. Environmental Management and Conservation

30%

Includes renewable and nonrenewable resources; the green revolution; agricultural practices; pesticides and pest control; soil conservation and land use practices; air pollution control; drinking water quality and supply; wastewater treatment; solid and hazardous waste; recycling and resource recovery; industrial ecology.

IV. Political Processes and the Future

10%

Includes environmental laws, policies, and ethics; planning and decision-making; international policy conflicts and agreements; differing cultural and societal values; future issues of population, food supply, energy, and pollution.

Questions on the test require candidates to demonstrate the following abilities. Some questions may require more than one of the abilities.

- Knowledge of basic facts and terms
(about 45 - 50% of the examination)
- Understanding of concepts and principles
(about 35 - 40% of the examination)
- Ability to apply knowledge to specific cases, situations, or issues
(about 10 - 15% of the examination)

SAMPLE QUESTIONS

1. The primary factor that determines the location and kind of biomes is

(A) climate
(B) soil
(C) altitude
(D) latitude
2. The oceans play a key role in the recycling of carbon and oxygen because of the productivity of

(A) fish
(B) marine mammals
(C) phytoplankton
(D) zooplankton
3. Early human populations increased rapidly with the widespread adoption of which of the following practices?

(A) Hunting
(B) Fishing
(C) Farming
(D) Herding
4. Concentrations of carbon dioxide, infrared energy, methane, and water vapor are major contributing factors to

(A) thermal air inversion
(B) the greenhouse effect
(C) urban smog
(D) acid rain
5. Catalytic converters are used to remove chemicals that contribute to

(A) lead poisoning
(B) carbon dioxide asphyxiation
(C) photochemical smog
(D) chlorofluorocarbon (CFC) pollution
6. Which of the following countries, with a total fertility rate of less than 2.0, is said to be at "zero population growth"?

(A) Thailand
(B) India
(C) Zimbabwe
(D) Sweden
7. An oak tree is an example of which of the following?

(A) Primary producer
(B) Primary consumer
(C) Secondary consumer
(D) Decomposer
8. Incomplete combustion in automobile engines releases which of the following into the atmosphere?

(A) Radon
(B) Carbon tetrachloride
(C) Asbestos
(D) Hydrocarbons

9. The combined use of fertilizers, pesticides, and hybrid seeds to increase crop yields is characteristic of which of the following?
 - (A) The green revolution
 - (B) Subsistence farming
 - (C) Sustainable yield agriculture
 - (D) Agroforestry

10. Which of the following is used to describe all of the living and nonliving features of a given area?
 - (A) Community
 - (B) Ecosystem
 - (C) Biome
 - (D) Carrying capacity

11. Recycling of resources is most critical for the conservation of which of the following?
 - (A) Biomass
 - (B) Food
 - (C) Minerals
 - (D) Wildlife

12. Which of the following statements is true about the near future of the biosphere?
 - (A) Human population will remain stable.
 - (B) Coal will be the primary natural energy source.
 - (C) The amount of food per person will remain constant.
 - (D) Increased industrialization will not increase pollution.

STUDYING FOR THE EXAMINATION

The following is a list of reference publications that were being used as textbooks in college courses of the same or similar title at the time the test was developed. Appropriate textbooks for study are not limited to those listed below. If you wish to obtain study resources to prepare for the examination, you may reference either the current edition of the following titles **or** textbooks currently used at a local college or university for the same class title. It is recommended that you reference **more than one textbook** on the topics

outlined in this fact sheet. You should **begin by checking textbook content against the content outline** included on the front page of this Fact Sheet **before** selecting textbooks that cover the test content from which to study. Textbooks may be found at the campus bookstore of a local college or university offering a course on the subject.

Sources for study material suggested but not limited to the following:

Cunningham, W.P., and B.W. Saigo.
Environmental Science: A Global Concern.
Dubuque, IA: Brown, current edition.

Enger, Eldon D. and Bradley F. Smith.
Environmental Science: The Study of Interrelationships. Dubuque, IA: Brown, current edition.

Kupchella, Charles E., and Margaret C. Hyland.
Environmental Science: Living Within the System of Nature. Englewood Cliffs, NJ: Prentice Hall, current edition.

Miller, G. Tyler, Jr. *Environmental Science: Working with the Earth*. Belmont, CA: Wadsworth, current edition.

Miller, G. Tyler, Jr. *Living in the Environment: Principles, Connections, and Solutions*. Belmont, CA: Wadsworth, current edition.

Nebel, Bernard J., and R.T. Wright. *Environmental Science: The Way the World Works*. Englewood Cliffs, NJ: Prentice-Hall, Inc. current edition.

Vesilind, P. Aarne, J. Jeffrey Peirce, and Ruth F. Weiner. *Environmental Pollution and Control*. Boston, MA: Butterworth-Heinemann, current edition.

Current textbook used by a local college or university for a course on the subject.

CREDIT RECOMMENDATIONS

The Center For Adult Learning and Educational Credentials of the American Council on Education (ACE) has reviewed and evaluated the DSST examination development process. The American Council on Education has made the following recommendations:

Area or Course	
Equivalent:	Environment and Humanity: The Race to Save the Planet
Level:	Lower-level baccalaureate
Amount of Credit:	Three (3) semester hours
Source:	ACE Commission on Educational Credit and Credentials

INFORMATION

Colleges and universities that would like additional information about the national norming, or assistance in local norming or score validation studies should write to: DSST Program, Mail Stop 11-P, The Chauncey Group International, 664 Rosedale Road, Princeton, New Jersey 08540.

It is advisable that schools develop a consistent policy about awarding credit based on scores from this test and that the policy be reviewed periodically. The Chauncey Group will be happy to help schools in this effort.

Correct Responses to sample questions: 1A; 2C; 3C; 4B; 5C; 6D; 7A; 8D; 9A; 10B; 11C; 12B.

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